

Mathematics Developmental Continuum: Mapping the 'Indicators of progress'

	<i>Number</i>	<i>Space</i>	<i>Measurement, chance & data</i>	<i>Structure</i>	<i>Working Mathematically</i>
0.5	<ul style="list-style-type: none"> One to one correspondence 	<ul style="list-style-type: none"> Recognising, comparing, sorting and matching shapes 	<ul style="list-style-type: none"> Awareness of time 		<ul style="list-style-type: none"> Simple Patterns
Level 1	<ul style="list-style-type: none"> Counting groups of up to 20 objects 	<ul style="list-style-type: none"> Developing the everyday language of location 	<ul style="list-style-type: none"> Comparison of Length 		<ul style="list-style-type: none"> Making Better Estimates
1.25	<ul style="list-style-type: none"> Counting with two digit numbers 		<ul style="list-style-type: none"> First experiences with chance Reading the hour on a clock 		
1.5	<ul style="list-style-type: none"> Counting on Complements to 10 	<ul style="list-style-type: none"> Folding and Symmetry 			<ul style="list-style-type: none"> Using a Calculator
1.75	<ul style="list-style-type: none"> Using a 100-chart for mental calculation Fact Families (Addition and Subtraction) 	<ul style="list-style-type: none"> Identifying shapes 	<ul style="list-style-type: none"> Pictographs and bar graphs 		<ul style="list-style-type: none"> Recognising and using patterns
Level 2	<ul style="list-style-type: none"> Skip Counting 	<ul style="list-style-type: none"> Simple transformations 	<ul style="list-style-type: none"> The idea of a unit 		
2.25	<ul style="list-style-type: none"> Renaming three-digit whole numbers Early division ideas 	<ul style="list-style-type: none"> Fitting shapes together 			
2.5	<ul style="list-style-type: none"> Early fraction ideas with models 	<ul style="list-style-type: none"> From Appearance to Properties: Classifying shapes 	<ul style="list-style-type: none"> Reading clocks to quarter hours 	<ul style="list-style-type: none"> The meaning of the equals sign Construction of Number Sentences 	<ul style="list-style-type: none"> Guess-check-improve strategy
2.75	<ul style="list-style-type: none"> Developing better multiplication strategies Fact Families (Multiplication and Division) 		<ul style="list-style-type: none"> Measuring area 	<ul style="list-style-type: none"> Properties of operations: Spin, shuffle and split 	<ul style="list-style-type: none"> Using diagrams and models
Level 3	<ul style="list-style-type: none"> Fluent recall of multiplication facts Algorithms for addition and subtraction of decimals 	<ul style="list-style-type: none"> Grid references and compass points 	<ul style="list-style-type: none"> Fairness relates to having an equal chance of winning 		
3.25	<ul style="list-style-type: none"> Order of Operations Choosing multiplication and division for calculations Multiples and fractions of 	<ul style="list-style-type: none"> Angles: static & dynamic 		<ul style="list-style-type: none"> Missing Number Sentences 	

	fractions				
3.5	<ul style="list-style-type: none"> ▪ Fraction as a number 	<ul style="list-style-type: none"> ▪ Shape: Classify 2D shapes using features ▪ Line Symmetry - also called Mirror Symmetry ▪ Visualisation in 2 and 3 dimensions 			<ul style="list-style-type: none"> ▪ Explain how Maths is useful
3.75	<ul style="list-style-type: none"> ▪ Identifying factors and relationship to multiplication 		<ul style="list-style-type: none"> ▪ Choosing Appropriate Graphical Displays ▪ Median as another central measure 	<ul style="list-style-type: none"> ▪ Venn Diagrams 	
Level 4	<ul style="list-style-type: none"> ▪ Comparing and ordering decimal numbers ▪ Partial products in multiplication 	<ul style="list-style-type: none"> ▪ Networks 	<ul style="list-style-type: none"> ▪ Perimeter and area are not the same ▪ Converting between measurement units ▪ Time Intervals 	<ul style="list-style-type: none"> ▪ Rules for Sequences ▪ Equivalence in Number Sentences 	<ul style="list-style-type: none"> ▪ Counter-examples ▪ Real world investigations
4.25	<ul style="list-style-type: none"> ▪ Which zeros matter? 	<ul style="list-style-type: none"> ▪ Changing conceptions of shapes 		<ul style="list-style-type: none"> ▪ The meaning of letters in algebra 	
4.5	<ul style="list-style-type: none"> ▪ Fractions for algebra and arithmetic ▪ Base 2 notation 	<ul style="list-style-type: none"> ▪ Congruence from rotations and reflections 	<ul style="list-style-type: none"> ▪ Dot plots and stem-and-leaf plots 	<ul style="list-style-type: none"> ▪ Structure of algebraic expressions 	<ul style="list-style-type: none"> ▪ Carrying out investigations
4.75	<ul style="list-style-type: none"> ▪ Subtracting negative numbers ▪ A negative multiplied by a negative 	<ul style="list-style-type: none"> ▪ Scales on maps 	<ul style="list-style-type: none"> ▪ Area of a circle ▪ Developing a critical approach to summary statistics and graphs 		
Level 5	<ul style="list-style-type: none"> ▪ Conceptual obstacles when multiplying and dividing by numbers less than 1 	<ul style="list-style-type: none"> ▪ Understanding contour lines 	<ul style="list-style-type: none"> ▪ Short-run variation and long-run stability 	<ul style="list-style-type: none"> ▪ Sets ▪ Manipulating symbols 	<ul style="list-style-type: none"> ▪ Mathematical deductions
5.25	<ul style="list-style-type: none"> ▪ Adding and taking off a percentage 		<ul style="list-style-type: none"> ▪ Converting between derived units 	<ul style="list-style-type: none"> ▪ Conceptual growth for solving equations 	
5.5	<ul style="list-style-type: none"> ▪ Solving percentage problems ▪ Easy and hard ratio and proportion questions ▪ Surds 	<ul style="list-style-type: none"> ▪ Latitude and Longitude 	<ul style="list-style-type: none"> ▪ Calculations involving rates 	<ul style="list-style-type: none"> ▪ Exponential functions 	<ul style="list-style-type: none"> ▪ Verifying results from CAS
5.75	<ul style="list-style-type: none"> ▪ Rationalising Surds 		<ul style="list-style-type: none"> ▪ Deeper understanding of Pythagoras' theorem 		<ul style="list-style-type: none"> ▪ Effective and efficient use of a graphics calculator
Level 6	<ul style="list-style-type: none"> ▪ The Euclidean Algorithm 	<ul style="list-style-type: none"> ▪ Angles in circles 			<ul style="list-style-type: none"> ▪ Mathematical arguments